

## Liste exhaustive et classée des publications :

→ les noms des étudiants et postdoc encadrés sont soulignés / \* auteur correspondant / IF année de parution

### 1. Publications dans des revues de rang A (Impact Facteur ≥ 1)

	Titre	Auteurs	Revue
"P29"	Influence of carbon diffusion and the oxygen presence on the microstructure of molybdenum powders densified by SPS	<u>Lorand, S.</u> ; <u>Demoisson, F.</u> ; Couque, H.; Bernard, F.*	<i>J ALLOY COMPD</i> , soumis en 02/2019 (IF 3.779)
"P28"	Grain boundary dynamics in a sintered nano-ceramic from Brillouin spectroscopy	Girard, A.*; Margueritat, J.; Machon, D.; <u>Demoisson, F.</u> ; Le Gallet, S.; Saviot, L.; Mermet, A.	<i>J NANOMATER</i> , soumis en 01/2019 (IF 2.207)
P27	Innovative magnetic nanoparticles for PET/MRI bimodal imaging	<u>Thomas, G.</u> ; Boudon, J.; Maurizi, L.; Moreau, M.; Walker, P.; Oudot, A.; Goze, C.; Poty, S.; <u>Demoisson, F.</u> ; Denat, F.; Brunotte, F.; Millot, N.*	<i>ACS Omega</i> , 2019,4(2), 2637 (IF 5.547)
P26	Contact laws between nanoparticles: the elasticity of a nanopowder	Girard, A.; Ramade, J.; Margueritat, J.; Machon, D.; Saviot, L.; <u>Demoisson, F.</u> ; Mermet, A.*	<i>Nanoscale</i> , 2018, 10(4), 2154 (IF 7.233)
P25	Inelastic Light Scattering Contribution to the Study of the Onset of Sintering of a Nanopowder	Saviot, L.; <u>Demoisson, F.</u> ; Le Gallet, S.; David, L.; Sudre, G.; Girard, A.; Margueritat, J.; Mermet, A.*	<i>Journal of Phys. Chem. C</i> , 2017, 121(4), 2487 (IF 4.536)
P24	One-step continuous synthesis of functionalized magnetite nanoflowers	<u>Thomas, G.</u> ; <u>Demoisson, F.</u> ; Chassagnon, R.; Popova, E.; Millot, N.*	<i>Nanotechnology</i> , 2016, 27(13), -- (IF 3.446)
P23	Functionalized Fe <sub>3</sub> O <sub>4</sub> nanoparticles: influence of ligand addition sequence and pH during their continuous hydrothermal synthesis	<u>Thomas, G.</u> ; <u>Demoisson, F.</u> ; Heintz, O.; Geoffroy, N.; Saviot, L.; Millot, N.*	<i>RSC Advances</i> , 2015, 5(96), 78614 (IF 3.289)
P22	Hydrothermal growth of ZnO nanostructures in supercritical domain: Effect of the metal salt concentration (Zn(NO <sub>3</sub> ) <sub>2</sub> ) in alkali medium (KOH)	<u>Demoisson, F.</u> *; <u>Piolet, R.</u> ; Bernard, F.	<i>Journal of Sup.Fluids</i> , 2015, 97, 268 (IF 2.571)
P21	Influence of the pH on the ZnO nanoparticle growth in supercritical water: Experimental and simulation approaches	<u>Demoisson, F.</u> *; <u>Piolet, R.</u> ; Ariane, M.; <u>Leybros, A.</u> ; Bernard, F.	<i>Journal of Sup.Fluids</i> , 2014, 95, 75 (IF 2.571)
P20	Hydrothermal synthesis of ZnO crystals from Zn(OH) <sub>2</sub> metastable phases at room to supercritical conditions	<u>Demoisson, F.</u> *; <u>Piolet, R.</u> ; Bernard, F.	<i>Crys. Growth &amp; Design</i> , 2014, 14(11), 5388 (IF 4.558)
P19	Thermodynamics of nanoparticles: Experimental protocol based on a comprehensive Ginzburg-Landau interpretation	Machon, D.; Piot, L.; Hapiuk, D.; Masenelli, B.; <u>Demoisson, F.</u> ; <u>Piolet, R.</u> ; Ariane, M.; Daniele, S.; Hosni, M.	<i>Nano Letters</i> , 2014, 14(1), 269 (IF 13.125)
P18	The influence of various synthesis methods on the catalytic activity of cerium oxide in one-pot synthesis of diethyl carbonate starting from CO <sub>2</sub> , ethanol and butylene oxide	Leino, E.; Mäki-Arvela, P.; Eta, V.; Kumar, N.; <u>Demoisson, F.</u> ; Samikannu, A.; Leino, A.-R.; Shchukarev, A.; Murzin*, D.Y.; Mikkola, J.P.	<i>Catalysis Today</i> , 2013, 210, 47 (IF 2,980)
P17	Quasi-free nanoparticle vibrations in a highly-compressed ZrO <sub>2</sub> nanopowder	Saviot, L.*; Machon, D.; Mermet, A.; Murray, D.B.; Adichtchev, S.V.; Margueritat, J.; <u>Demoisson, F.</u> ; Marco de Lucas, M.C.	<i>Journal of Phys. Chem.</i> 2012, 116, 22043 (IF 4,814)
P16	CFD simulation of ZnO nanoparticle precipitation in a supercritical water synthesis reactor	<u>Leybros, A.</u> ; <u>Piolet, R.</u> ; Ariane, M.; Muhr, H.; Bernard, F. and <u>Demoisson, F.</u> *	<i>Journal of Sup.Fluids</i> , 2012, 70, 17 (IF 2,860)
P15	One step continuous hydrothermal synthesis of very fine stabilized superparamagnetic nanoparticles of magnetite	Maurizi, L.; Bouyer, F.; Paris, J., <u>Demoisson, F.</u> , Saviot, L. & Millot, N.*	<i>ChemComm</i> , 2011, 47, 11706 (IF 6,169)

<b>P14</b>	Design of a reactor operating in supercritical water conditions using CFD simulations. Examples of synthesized nanomaterials	<u>Demoisson, F.*</u> ; Ariane, M.; <u>Leybros, A.</u> ; Muhr, H.; Bernard, F.	<i>Journal of Sup.Fluids</i> , <b>2011</b> , 58(3), 371 (IF <b>2,986</b> )
<b>P13</b>	Acoustic vibrations of monoclinic zirconia nanocrystals	<u>Demoisson, F.</u> ; Ariane, M.; Saviot, L.*	<i>Journal of Phys. Chem.</i> <b>2011</b> , 115 (30), 14571 (IF <b>4,805</b> )
<b>P12</b>	Tin-based mesoporous silica for the conversion of CO <sub>2</sub> into dimethyl carbonate	Ballivet-Tkatchenko, D.*; Bernard, F.; <u>Demoisson, F.</u> ; Plasseraud, L.; Reddy Sanapureddy, S.	<i>ChemSusChem</i> , <b>2011</b> , 4(9), 1316 (IF <b>6.827</b> )
<b>P11</b>	Original supercritical water device for continuous production of nanopowders ☞ <a href="#">Article commenté sur MaterialsView.com</a> ☞ <a href="#">Article sélectionné sur REGinnov.com</a>	<u>Demoisson, F.*</u> ; Ariane, M.; <u>Piolet, R.</u> ; Bernard, F.	<i>Adv.Eng. Materials</i> , <b>2011</b> , 13(6), 487 (IF= <b>1,738</b> )
<b>P10</b>	Gas sensing properties of multiwall carbon nanotubes decorated with rhodium nanoparticles	Leghrib, R., Dufour, T., <u>Demoisson, F.</u> , Claessens, N., Reniers, F., Llobet, E.*	<i>Sens. and Act.B:</i> <b>2011</b> , 160(1), 974 (IF <b>3,898</b> )
<b>P9</b>	Carbon nanotubes decorated with gold, platinum and rhodium clusters by injection of colloidal solutions into the post-discharge of an RF atmospheric plasma	Claessens, N.*; <u>Demoisson, F.</u> ; Dufour, T.; Mansour, A.; Felten, A.; Guillot, J.; Pireaux, J-J.; Reniers F.	<i>Nanotechnology</i> , <b>2010</b> , 21, 38 (IF= <b>3,446</b> )
<b>P8</b>	Room-temperature, selective detection of benzene at trace levels using plasma-treated metal-decorated multiwalled carbon nanotubes	Leghriba, R.; Felten, A.; <u>Demoisson, F.</u> ; Reniers, F.; Pireaux, J-J.; Llobeta, E.*	<i>Carbon</i> , <b>2010</b> , 48(12), 3477 (IF = <b>4,893</b> )
<b>P7</b>	Carbon nanotubes randomly decorated with gold clusters: from nano2hybrid atomic structures to gas sensing prototypes	Charlier, J.-C.; Arnaud, L.; Avilov, I. V.; Delgado, M.; <u>Demoisson, F.</u> ; Ewels, C. P.; Felten, A.; Llobet, E.; Migeon, H.-N.; Pireaux, J.-J.; Reniers, F.; Zanolli, Z.*	<i>Nanotechnology</i> , <b>2009</b> , 20, 37 (IF= <b>3,842</b> )
<b>P6</b>	Characterization of gold nanoclusters deposited on HOPG by atmospheric plasma treatment	<u>Demoisson, F.*</u> ; Raes, M.; Vereecken, J.; Guillot, J.; Migeon, H.-N.; Reniers, F.	<i>Surf. &amp; Inter. Anal.</i> <b>2008</b> , 40(3), 566 (IF= <b>1,272</b> )
<b>P5</b>	Accurate $\mu$ Raman characterization of reaction products at the surface of (bio)oxidized pyrite	Pisapia, C.; Humbert, B.; Chaussidon, M.; <u>Demoisson, F.</u> ; Mustin, C.*	<i>American Mineralogist</i> , <b>2010</b> , 95(11-12), 1730 (IF= <b>2,026</b> )
<b>P4</b>	Pyrite oxidation in acidic medium: overall reaction pathway	<u>Demoisson, F.*</u> ; Mullet, M.; Humbert, B.	<i>Surf. &amp; Inter. Anal.</i> <b>2008</b> , 40(3), 343 (IF= <b>1,272</b> )
<b>P3</b>	Pyrite oxidation by hexavalent chromium: Investigation of the chemical processes from solution species ratios and surface chemistry	<u>Demoisson, F.</u> ; Mullet, M*; Humbert, B.	<i>J. of Coll. &amp; Inter.Sci.</i> <b>2007</b> , 316, 531 (IF= <b>3,019</b> )
<b>P2</b>	Aqueous Cr(VI) reduction by pyrite: speciation and characterisation of the solid phases by X-ray photoelectron, Raman and X-ray absorption spectroscopies	Mullet, M.*; <u>Demoisson, F.</u> ; Humbert, B.; Michot, L.; Vantelon, D.	<i>Geochimica and Cosm.Acta</i> , <b>2007</b> , 71(1), 32571 (IF= <b>4,235</b> )
<b>P1</b>	Pyrite Oxidation by Hexavalent Chromium: Investigation of the Chemical Processes by Monitoring of Aqueous Metal Species	<u>Demoisson F.*</u> , Mullet M.; Humbert B.	<i>Envir. Science and Technology</i> , <b>2005</b> , 39, 8747 (IF= <b>4,458</b> )

## 2. Brevets

	<b>Titre</b>	<b>Inventeurs</b>	<b>Année</b>	<b>Référence</b>
<b>B3</b>	Device for the selective detection of benzene gas, method of obtaining it and detection of the gas therewith	Llobet, E.; Pireaux, J.-J.; Mansouri, A.; Delgado, M.; Felten, A.; <u>Demoisson, F.</u> ; Leghrib, R.; Reniers, F.; Claessens, N.;	<b>2011</b>	WO 201105298A1

		Guillot, J.; Migeon, H.-N.		
<b>B2</b>	Counter-current flow reactor with heat transfer for hydrothermolytic synthesis,	Aymes, D.; Ariane, M.; Bernard, F.; Muhr, H.; <u>Demoisson, F.</u>	<b>2011</b>	WO 2011010056A1
<b>B1</b>	Deposition of nanoparticles on a support by spraying of colloidal solution in atmospheric plasma	Reniers, F.; <u>Demoisson, F.</u> ; Pireaux, J.-J.	<b>2009</b>	WO 2009021988A1

### 3. Proceedings

	<b>Titre</b>	<b>Auteurs</b>	<b>Revue</b>
<b>Pr3</b>	Selective detection of benzene traces at room temperature using metal decorated carbon nanotubes	Leghrib, R.; Felten, A.; <u>Demoisson, F.</u> ; Reniers, F.*; Pireaux, J.J.; Llobet, E.	<i>Procedia Engineering</i> <b>2010</b> , 5, 385-390
<b>Pr2</b>	One step decoration of carbon nanotubes by gold, platinum, and rhodium nanoparticles by the injection of colloidal solutions into an atmospheric plasma	Reniers, F.*; <u>Demoisson, F.</u> ; Dufour, T.; Claessens, N.; Felten, A.; Guillot, J.; Migeon, H.; Pireaux, J.-J.	<i>Pacificchem</i> 2010, <b>2010</b> , 258-263
<b>Pr1</b>	First observation of the Raman spectrum of isolated single-wall carbon nanotubes by near-field optical Raman spectroscopy	Schreiber, J.; <u>Demoisson, F.</u> ; Humbert, B.; Louarn, G.; Chauvet, O.; Lefrant, S*	<i>AIP Conference Proceedings</i> , <b>2003</b> , 685, 181-189